FACT SHEET

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue, OW-130
Seattle, Washington 98101
(206) 553-1214

Date: November 26, 1997

Permit No. **AK-005289-2**

PROPOSED ISSUANCE OF A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE POLLUTANTS PURSUANT TO THE PROVISIONS OF THE CLEAN WATER ACT (the ACT) for

Arctic Whitney, Inc.
P.O. Box 782
Nome, Alaska 99762

has applied for issuance of a National Pollutant Discharge Elimination System (NPDES) permit to discharge pollutants pursuant to the provisions of the Act. This fact sheet includes (a) the tentative determination of the Environmental Protection Agency (EPA) to issue the permit, (b) information on public comment and appeal procedures, (c) the description of the proposed discharge, (d) a listing of tentative effluent limitations and other conditions, and (e) a sketch or detailed description of the discharge. We call your special attention to the technical material presented in this document.

Persons wishing to comment on the proposed permit issuance may do so by the expiration date of the Public Notice. All written comments should be submitted to EPA as described in the Public Comments Section of the attached Public Notice.

After the expiration date of the Public Notice, the Director, Office of Water, will make final determinations with respect to permit issuance. The tentative determinations contained in the draft permit will become final conditions if no substantive comments are received during the Public Notice period.

The permit will become effective 30 days after the final determinations are made, unless a request for an evidentiary hearing is submitted within 30 days after receipt of the final determinations.

The proposed NPDES permit and other related documents are on file and may be inspected at the above address any time between 8:30 a.m. and 4:00 p.m., Monday through Friday. Copies and other information may be requested by writing to EPA at the above address to the attention of Cindi Godsey, or by calling (907) 271-6561.

TECHNICAL INFORMATION

1. APPLICANT INFORMATION

Arctic Whitney, Inc. has applied for an NPDES permit for an amphibious suction dredge operation. The application and supporting information were submitted on March 7, 1997. EPA assigned the application NPDES Permit Application Number AK-005289-2.

The facility will operate off-shore of Nome (Figure 1). The dredge is mounted on wheels with 10 foot tires, and is capable of operating in water depths of 5 to 10 feet. A bucketwheel cutter will pass the sand and gravel to a trommel which will discharge +½ inch rock and pass -½ inch material to the 10 inch suction hose (restricted down to an 8 inch nozzle). A 10 inch solids pump will lift the slurry through a diffuser to a shaker screen which will feed three size categories to individual sluice boxes. The tailings from these sluices will be pumped aft through a 12 inch hose and discharged with the oversize from the trommel. During full production, the dredge will be advanced about 15 feet per hour.

The dredge will be designed to mine and process as much as 60 cubic yards per hour. Mining will be conducted with care to minimize excavation of the glacial clay which is detrimental to gold recovery and exacerbates the efforts to minimize turbidity. The discharge of all oversize and tailing immediately aft of the excavator assures that the operation will not mound gravel in excess of expansion. Storm activity, surf activity and winter ice movement will totally obliterate small irregularities which might occur.

2. RECEIVING WATER

The receiving water is the marine water of Norton Sound which is classified in 18 AAC 70 as Classes (2)(A), (B), (C), and (D) for use in aquaculture, seafood processing, and industrial water supply; contact and secondary recreation; growth and propagation of fish, shellfish, other aquatic life, and wildlife; and harvesting for consumption of raw mollusks or other raw aquatic life.

3. STATUTORY BASIS FOR PERMIT CONDITIONS

A. Technology-based Limitations

Pursuant to the Act Section 402(a)(2) [40 CFR 122.44(k)(3)], Best Management Practices (BMPs) are being proposed. These practices are reasonably necessary either to achieve effluent limitations or to carry out the Act's goals of eliminating the discharge of pollutants as much as practicable and to maintain water quality.

B. Water Quality-based Limitations

Section 301(b)(1) of the Act requires the establishment of limitations in permits necessary to meet water quality standards by July 1, 1977. All discharges to state waters must comply with state and local coastal management plans as well as with state water quality standards, including the state's antidegradation policy. Discharges to state waters must also comply with limitations imposed by the state as part of its coastal management program consistency determination (see Section 5.b., below), and of its certification of NPDES permits under section 401 of the Act.

The NPDES regulations at 40 CFR 122.44(d)(1) require that permits include water quality-based limits which "Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality."

C. Section 308 of the Clean Water Act

Under Section 308 of the Act and 40 CFR § 122.44(i), the Director must require a discharger to conduct monitoring to determine compliance with effluent limitations and to assist in the development of effluent limitations. EPA has included monitoring requirements in this permit, as listed below.

4. SPECIFIC PERMIT CONDITIONS

The determination of appropriate conditions for the discharge was accomplished through consideration of technology-based effluent limitations and inclusion of permit terms necessary to ensure compliance with state water quality standards. Discussions of the specific effluent limitations and monitoring requirements appear below.

A. Limitations

Suction dredges' unique method of intake and displacement present unusual permitting issues. They operate on the surface of the water, only remove material from the bottom of the waterbody, and process and quickly return mined material to the bottom. For these reasons EPA has determined that numeric effluent limitations are not necessary. Instead, the BMPs in Permit Part II. have been developed. These BMPs, which are supplemented by required turbidity monitoring designed to ensure that the BMPs are being implemented properly, are, in this circumstance, sufficient to implement the requirements of the Act. That is, these practices would ensure that the beneficial uses designated by the State are adequately protected and justify the absence of more stringent technology and water quality-based effluent limitations.

B. Monitoring and Reporting Requirements

The permit requires daily visual inspection for turbidity of the area within a 500 foot radius of the amphibious suction dredge during operation. This also includes any turbidity that may result from the operation of the wheeled vehicle in Norton Sound. If turbidity is observed beyond 500 feet, the permittee would be required to modify its operations to meet the permit limitation. If the operation could not be modified to meet the limit, the operation would not be authorized.

In most cases, water quality recovers rapidly. The daily inspection during operation, combined with the BMPs in Permit Part II. should assure that the water quality standards are met.

The reporting requirement is based on 40 CFR § 122.48 which is specified in the permit as an annual submission of the Discharge Monitoring Report (DMR). 40 CFR § 122.44(i)(2) allows flexibility in determining the frequency of reporting.

5. OTHER LEGAL REQUIREMENTS

A. Oil Spill Requirements

Section 311 of the Act prohibits the discharge of oil and hazardous materials in harmful quantities. Routine discharges specifically controlled by a permit are excluded from the provisions of Section 311. However, this permit does not preclude the institution of legal action or relieve the permittee from any responsibilities, or penalties for other, unauthorized discharges of oil and hazardous materials which are covered by Section 311 of the Act.

B. Coastal Zone Management Act

The activity proposed by the applicant was found consistent with the Alaska Coastal Management Plan on June 9, 1997. Jeffrey C. Davis, State of Alaska Division of Governmental Coordination, stated that since the project has already been through a review and found consistent, it need not go through another (personal communication, October 14, 1997).

C. State Water Quality Standards and State Certification

Whereas state waters are involved in this draft permit, the provisions of Section 401 of the Act will apply. Furthermore, in accordance with 40 CFR § 124.01(c)(1), public notice of the draft permit has been provided to the State of Alaska and Alaska state agencies having jurisdiction over fish, shellfish, and wildlife resources, and over coastal zone management plans.

D. Marine Protection, Research and Sanctuaries Act

No marine sanctuaries as designated by this Act exist in the vicinity of the permit areas.

E. Endangered Species Act

EPA has made a decision that the discharges authorized in this permit are not likely to affect species of concern in the project area. Letters were sent to the U.S. Fish and Wildlife Service (USFW) and to the National Marine Fisheries Service (NMFS) on October 15, 1997, requesting information to the extent of threatened and endangered species in the project area.

6. REFERENCES

The following references were used in an unpublished research effort entitled "A Review of the Regulations and Literature Regarding the Environmental Impacts of Suction Gold Dredges," April 1993 by Phillip A. North of the Environmental Protection Agency, Region 10, Alaska Operations Office.

Griffith, J.S. and D.A. Andrews. 1981. Effects of a small suction dredge on fishes and aquatic invertebrates in Idaho streams. North American Journal of Fisheries Management 1:21-28.

Hassler, T.J., W.L. Somer and G.R. Stern. 1986. Inpacts of suction dredge mining on anadromous fish, invertebrates and habitat in Canyon Creek, California. Calif. Coop. Fish. Res. Unit., Humboldt State University, Arcata, California, Coop. Agreement No.14-16-009-1547, Work Order No. 2. 135 pages.

Harvey, B.C. 1986. Effects of suction gold dredging on fish and invertebrates in two California streams. North American Journal of Fisheries Management 6:401-409.

Huber, C. and D. Blanchet. 1992. Water quality cumulative effects of placer mining on the Chugach National Forest, Kenai Peninsula, 1988-1990. U.S. Forest Service, Chugach National Forest, Alaska Region. 74 pages.

Thomas, V.G. 1985. Experimentally determined impacts of a small suction gold dredge on a Montana stream. North American Journal of Fisheries Management 5:480-488.